

IN THE CLAIMS:

1. (Previously Presented) A reinforced rigid anode monolith and fuel produced by the process comprising:

providing a solution of organic aerogel or xerogel precursors including at least one of a phenolic resin, phenol (hydroxybenzene), resorcinol(1, 3-dihydroxybenzene), or catechol(1,2-dihydroxybenzene); at least one aldehyde compound selected from the group consisting of formaldehyde, acetaldehyde, and furfuraldehyde; and a transition metal oxide catalyst;

adding internal reinforcement materials selected from (1) ceramic materials; (2) glassy materials based on borates, phosphates, or silicates with alkaline earth or transition metal cations; and/or (3) carbon materials to said precursor solution to form a precursor mixture;

gelling said precursor mixture to form a composite gel;

drying said composite gel; and

pyrolyzing said composite gel to form an aerogel/carbon composite or a xerogel/carbon composite wherein said composites comprise chars and said internal reinforcement materials, and said chars are fuel capable of being combusted in a molten salt electrochemical fuel cell in the range from 500 C to 800 C to produce electrical energy.

2. (Previously Presented) The monolith recited in claim 1, wherein said drying is accomplished by supercritical-critical solvent extraction.

3. (Previously Presented) The monolith recited in claim 1, wherein said drying is accomplished by air drying.

4. (Previously Presented) The monolith recited in claim 1, wherein said ceramic materials are selected from the group consisting of silica, aluminosilicates, and ash derived from coal or petroleum clays.

5. (Previously Presented) The monolith recited in claim 1, wherein said carbon materials are selected from the group consisting of carbon fibers, carbon paper, carbon rods, carbon fabrics, carbon screens, graphite or highly graphitized carbon structures.

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12. (Previously Presented) The monolith recited in claim 1 wherein said composites have a density of at least 0.56 grams/cm³.

13. (Previously Presented) The monolith recited in claim 5 wherein said carbon materials comprise graphite.

14. (Previously Presented) The monolith recited in claim 1 wherein the pyrolyzing is conducted in the presence of a material selected from the group consisting of alkali carbonate, alkaline earth carbonate or phosphoric acid, halide salts, and salts based on sodium aluminum hexafluoride.

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